

REMARKS

This Amendment responds to the Office Action dated August 18, 2006 in which the Examiner requested appropriate headings in the specification, objected to the drawings, rejected claims 3-5 under 35 U.S.C. §112, first paragraph, rejected claim 1 under 35 U.S.C. §102(b) and rejected claim 2 under 35 U.S.C. §103.

As indicated above, the specification has been amended for the proper headings. Applicant respectfully requests the Examiner approves the corrections.

The drawings were objected to and claims 3-5 were rejected under 35 U.S.C. §112, first paragraph. As indicated above, claims 3-5 have been canceled without prejudice. Therefore, Applicant respectfully requests the Examiner withdraws the objection to the drawings and rejection of claims 3-5 under 35 U.S.C. §112, first paragraph.

As indicated above, claims 1 and 2 have been amended for stylistic reasons. The amendment is unrelated to a statutory requirement for patentability and does not narrow the literal scope of the claims.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by *Galuska* (U.S. Patent 3,177,841).

Applicant respectfully traverses the Examiner's rejection of the claim under 35 U.S.C. §102(b). The claim has been reviewed in light of the Office Action and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claim and allows the claim to issue.

Galuska appears to disclose the lower end of the propeller shaft supporting strut 14 defines a sleeve portion 20 which is aligned with the sleeve 18. A pair of cutlass bearing generally referred to by the reference numerals 22 and 24 are

disposed in the sleeve 18 and the sleeve portion 20, respectively, and it may be seen from FIGURE 1-3 of the drawings that each of the bearings 22 and 24 is generally cylindrical in configuration and constructed of resilient material. Each of the bearings 22 and 24 is provided with a plurality of internal and longitudinally extending grooves 26 and the bearing 22 and 24 rotatably journal a propeller shaft 28 at points spaced longitudinally thereof. The propeller shaft 28 has a propeller 30 mounted on its rear end for rotation therewith and suitable stuffing means 32 is secured in the bore end portion 16 by means of jamb nut 34 to provide a water-tight seal between the bottom 12 and the shaft 28. Column 2, lines 36-51). In addition, the bottom 12 has an upstanding bore 46 formed therein which opens downwardly through the sleeve 18 at its lower end and upwardly through the bottom 12 at its upper end. A pipe 48 extends through the bore 46 and is communicated with the manifold tube 44 at its upper end. The manifold tube 44 is communicated with an outlet fitting 50 of a filter assembly 52 at its inlet end and the filter assembly 52 includes an inlet fitting 54 with which the outlet end of a delivery pipe 56 is communicated. The inlet end of the delivery pipe 56 is communicated with the outlet fitting 58 of a water pump generally referred to by the reference numeral 60 and it is to be understood that the water pump 60 includes an inlet (not shown) which opens through the bottom of the boat hull 10. (Column 2, line 66 through column 3, line 11). In operation, when the pump 60 is operating water delivered therefrom passes through the filter assembly 52 and into the longitudinal grooves 36 of the bearings 22 and 24. It is to be understood that discharge from the pump 60 is sufficient to create enough pressure in the grooves 34 and 36 of the bearings 22 and 24 to prevent the ambient water from entering the bearings. In this manner, clean filtered water will be

utilized to lubricate bearings 22 and 24 and in a manner which will prevent the entrance of the ambient water into the bearings 22 and 24. (Column 3, lines 23-32).

Thus, *Galuska* merely discloses a) a bearing 22 rotatably journal a propeller shaft 28 (column 2, lines 43-46) and b) a stuffing means 32 to provide a water tight seal between a bottom 12 and a propeller shaft 28 (column 2, lines 48-51). Nothing in *Galuska* shows, teaches or suggests an annular member surrounding both a propeller shaft and the outer seal of a sealing system as claimed in claim 1. Rather, as shown in Figure 1, the bearing 22 abuts against one side of the stuffing means 32. Furthermore, since the stuffing means 32 provides a water tight seal between the bottom 12 of a boat hull and the propeller shaft 28, nothing in *Galuska* shows, teaches or suggests the annular member introducing flushing water to an immediate vicinity of the outer seal as claimed in claim 1.

Applicant respectfully points out that *Galuska* is for a water lubricating system and thus does not provide an outer seal since the escape of lubricating water to the surrounding environment does not create a problem.

Since nothing in *Galuska* shows, teaches or suggests an annular member surrounding an outer seal of a sealing system as claimed in claim 1, Applicant respectfully requests the Examiner withdraws the rejection to claim 1 under 35 U.S.C. §102(b).

Claim 1 was rejected under 35 U.S.C. §102(b) as being unpatentable over *Kuiken* (GB 1 522 739).

Applicant respectfully traverses the Examiner's rejection of the claim under 35 U.S.C. §102(b). The claim has been reviewed in light of the Office Action and for

reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claim and allows the claim to issue.

Kuiken appears to disclose stationary seal element is secured fluid tight to the shaft bearing closing plate 5. The stationary seal element consists of a base ring 6 with concentric grooves in which are accommodated the seal face rings 7 and 8 which may be radially split, the seal faces on rings 7 and 8 being separated by the annular space 9 with drain connection 10 leading into the ship. The seal face on ring 8 is provided with a lubricating connection 11. (Column 2, lines 37-46). The pipe connection 21 provides a clean water supply to the space adjacent the seal arrangement within the confinement of the rope guard 22. (Column 3, lines 73-76).

Thus, *Kuiken* merely discloses a rope guard 22 and a water pipe connection 21. Nothing in *Kuiken* shows, teaches or suggests an annular member surrounding both a propeller shaft and outer seal and the annular member establishes a flushing flow directed toward the propeller shaft as claimed in claim 1. Rather, the member 22 of *Kuiken* does not establish a flushing flow from an opening and does not surround an outer seal of a sealing system of a propeller shaft.

Furthermore, Applicant respectfully points out that the pipe connection 21 of *Kuiken* provides a water supply. Thus, the water lubricating system *Kuiken* does not require outer seals since the escape of the lubricating water to the surrounding environment does not create any problems.

Since nothing in *Kuiken* shows, teaches or suggests an annular member surrounding both the propeller shaft and outer seal of a sealing system of a propeller shaft and the annular member having at least one opening which establishes the

flushing flow as claimed in claim 1, Applicant respectfully requests the Examiner withdraws the rejection to claim 1 under 35 U.S.C. §102(b).

Claim 2 was rejected under 35 U.S.C. §103 as being unpatentable over *Kuiken* in view of *Smeallie* (U.S. Patent 2,538,921).

Applicant respectfully traverses the Examiner's rejection of the claim under 35 U.S.C. §103. The claim has been reviewed in light of the Office Action and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claim and allows the claim to issue.

As discussed above, *Kuiken* merely discloses pipe connection 21 providing a clean water supply and rope guard 22. Nothing in *Kuiken* shows, teaches or suggests an annular member surrounding both a propeller shaft and outer seal and the annular member including an internal flow distribution duct having an opening establishing a water flow as claimed in claim 2.

Additionally, nothing in *Smeallie* shows, teaches or suggests a means for distributing the water flow substantially uniformly around the shaft as claimed in claim 2.

Smeallie appears to disclose a pair of metallic bushings 22 are mounted against rotation within the casting 10, to enclose the respective sleeves 17, and the bushings are of the same length as the sleeves and have their ends aligned with those of the sleeves. The bushings 22 have longitudinal channels 23 in their inner surfaces, which extend from end to end thereof, and the channels are open at both ends and lie above a horizontal plane through the axis of the shaft. Preferably, two such channels are provided in each bushing 22 with the channels lying on either side of a vertical plane through the shaft and offset about 45° from that plane. The

channels 23 in the rear bushing 22 are open at their rear ends for the entry of water and are in communication at their forward ends with the circumferential passage 18. The channels 23 in the forward bushing 22 are open at their rear ends to passage 18 and, at their forward ends, to the space within passage 13 forward of the bearing. (Column 3, lines 14-34).

Thus, *Smeallie* merely discloses channels provided in bushing 22. Nothing in *Smeallie* shows, teaches or suggests an annular member surrounding a propeller shaft and outer seal and the annular member having an opening to establishing a water flow as claimed in claim 2.

Additionally, *Smeallie* only discloses longitudinal channels 23 in bushings 22. Nothing in *Smeallie* shows, teaches or suggests that the channels distribute water flow substantially uniformly as claimed in claim 2.

Finally, *Smeallie* is similarly directed to a water lubricant system and thus does not require outer seals to prevent the escape of lubricating water to the surrounding environment.

The combination of *Kuiken* and *Smeallie* would merely suggest to replace the rope guard 22 of *Kuiken* with the bushings of *Smeallie*. Thus nothing in the combination of the references shows, teaches or suggests the primary features as claimed in claim 2. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claim 2 under 35 U.S.C. §103.

New claims 6-9 have been added and recite additional features. Applicant respectfully submits that these claims are also in condition for allowance.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 02-4800.


In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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